

CONFIDENTIAL*File: Bural
packaging**copied by UMC 14 July*

January 6, 1955

HNG-M-23

ILLEGIB

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Attention:

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Gentlemen:

The program proposed in your letter of November 23, 1954 (C-59422) for the hot dipping and subsequent testing of various items has been reviewed by this office. This is in line with what we feel would constitute a worthwhile testagenda, the results of which should be very informative.

We have added three more items to the test agenda and have omitted the small arms ammunition and head delay incendiary. The latter item is not yet available. Tests of it and the ammunition along with certain other items will be done in the future.

It is also believed that additional valuable information can be obtained through modifications in the suggested procedure. The following modifications are submitted for inclusion in the program:

Testing of the hot dipped items should be broken down into four phases. For each type of item dipped:

1. One-quarter of the units should be functional, tested within 24 to 48 hours after being hot dipped.
2. One-quarter of the units should be cycle tested as follows:
 - a. Four hours @ 120° to 130°F and 90% R.H.
 - b. Two hours @ 70° to 90°F and 90% R.H.
 - c. Two hours @ 0° to -10°F or lower.
 - d. Sixteen hours @ 35° to 50° F and 20% R.H.

Repeat three times then test for proper functioning.

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DOO	3	DEV DATA	26 June 50	OV	057497
ORIG ORGP	086	GPI	56	TYPE	01
ORIG CLASS	5	PACCS	5	DEV CLASS	2
JUST	22	NEXT DEV	20/0	AUTH	NR 10-2

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3. One-quarter of the items should be given a storage test in an igloo for six months, followed by functional testing.
4. One-quarter of the items should be buried in loam soil. After six months of burial, the cached items shall be unearthed and tested for proper functioning.

Modifications concerning the items themselves are given below. Numbers in parentheses correspond to those in your listing in letter C-59422:

^{RR Torpedo}
 (1) U-Unit: Twenty units should be dipped so that five units can be apportioned for each phase of testing outlined above. A six-inch length of primacord should be taped to the detonator just prior to testing. The criterion for satisfactory functioning will be the successful detonation of a Corps of Engineers special non-electric detonator which in turn successfully detonates the primacord when a ten-pound weight is allowed to fall on the dome through a distance of 30 inches.

(2) C-3 and C-4: Twenty 2 1/4 pound blocks should be dipped, five blocks to be used for each portion of testing. ~~We are uncertain as to what benefits result from pre-wrapping, the explosive in waxed paper, and over-wrapping with grease-proof crepe paper. Would this be superior to, say, wrapping the explosive in grease-proof paper over wrapped in aluminum foil? This question should be resolved in the program.~~

(3) Primacord: These items should be placed in metal foil bags, the
 (4) Time Fuse: bags evacuated and then dipped. Hot dipping either primacord or time fuse directly allows the oil in the plastic to penetrate the protective covering of the cord and render it useless. Time fuse is less resistant to penetration than primacord in this respect. Twenty packages of each should be dipped.

(5) Fuse Lighters: Twenty units should be dipped to fit the test agenda.

^{IPT}
 (6) D-Unit: In addition to the protection afforded the unit pack by the metal can, under severe storage conditions the extra protection given by a plastic coating is desirable. Hence, it is suggested that this item be included in the agenda. Red time penciled units should be used as they have the shortest delay. Twenty cans should be dipped.

^{Thermit Well}
 (7) O-Unit: Twenty units should be dipped.

(8) Head Delay Incendiary: This item is not yet available and so will not be included in this test series.

(9) Small Arms Ammunition and Rocket Incendiary Adapter: The small arms ammunition can be omitted from this test agenda for the present. Both

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2.36 and 3.5 inch rocket incendiary adapters are currently in your igloo storage and should be included in the test. Twenty units of each size should be dipped.

ADDITIONAL ITEMS

(10) Time Pencils - Boxed: Four boxes of time pencils should be dipped. One can will be included in each phase of testing. Black or red pencils should be used to take advantage of the shortest delay time.

(11) G-Unit: ^{AC Delay} Twenty delay kits should be dipped. An M-34 detonator should be included in each metal kit. (Mk. I)

(12) Fuzee Match-Head Boxed: Twenty boxes should be dipped.

X (13) P-Unit: Twenty canned units should be dipped.
We have checked with Logistics regarding the disposition of the hot dip tank at the Reservation. This piece of equipment along with a large supply of plastic has been crated for possible future shipment from the Reservation.

Logistics has no immediate need for this tank at present. Inasmuch as a tank will be required for this program, they are willing to leave this tank on the Reservation. There will perhaps be other hot dipping programs going on at the Reservation in the future for which a tank will be required.


If the above modifications to your letter meet with your approval, we are expecting a proposal for the testing program. If there are any further questions, please contact our representatives on this project.

Sincerely yours,



- Jan 54

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DD/P/TSS/MD  :mm

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Distribution:

Orig. & 1 - Addressee
1 - Tests of Packaged Items
1 - MD Chrono

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